

# FEHRL



## Building Partnerships for Road Transport Research

*Steve Phillips,  
Secretary-General of FEHRL*



# Overview

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- Partnerships throughout the research cycle
- Partnerships with problem owners
- Partnerships for profile
  - Structuring of European Road Transport Research
- Partnerships for research execution
- Partnerships for implementation
- Opportunities

# What is FEHRL?

- Formed in 1980's as the organisation of European National Road Research Centres
- Currently consists of 30 national centres
- Advising on and facilitating cooperative research projects with European Road Directorates, European Commission and other international partners

# FEHRL's objectives

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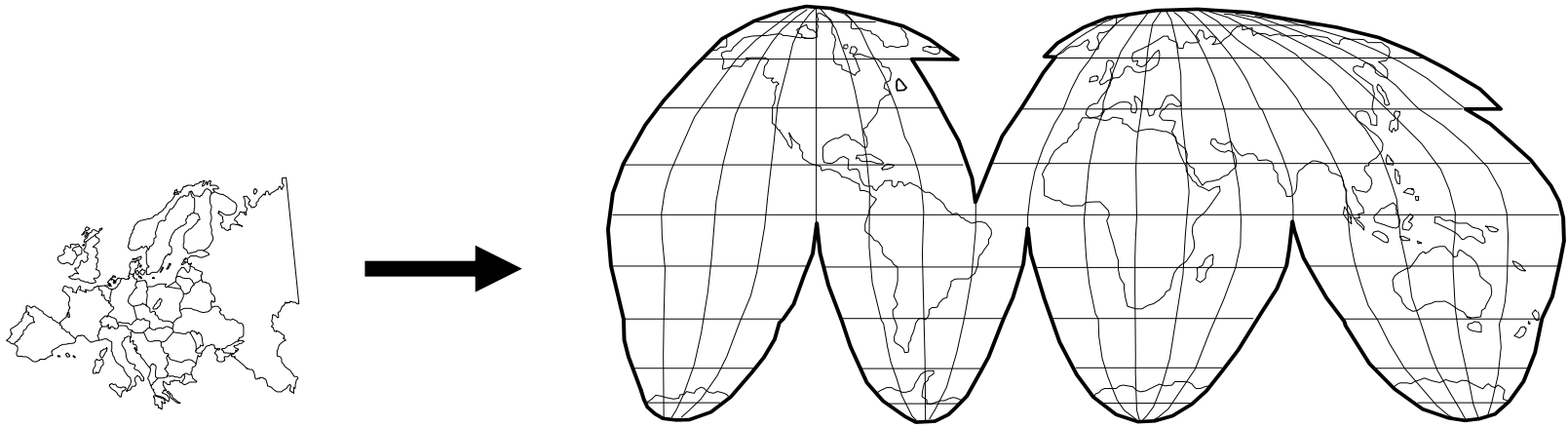
Through research collaboration, FEHRL's statutory objectives are to:

- Provide scientific input to European and national government policy on highway engineering and road transport matters.
- Create and maintain an efficient and safe road network in Europe.
- Increase innovation in European road construction and road-using industries.
- Improve the energy efficiency of highway engineering and operations.
- Protect the environment and improve quality of life.

# “Research in Europe”?

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- Road transport research is changing and part of this change is reflected internationally.



- Not only the (global) challenges but also the need for necessary skills

# Road research in Europe

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- The European Commission funds research in cycles through its 'Framework programmes'
  - FP4 - 1994-98, €13.2 Billion
  - FP5 - 1998-2002, €15 Billion
  - FP6 – 2002-06, €17.5 Billion
  - FP7 – 2007-13, €50 Billion
    - €4.2 Billion in 'Cooperation' for Transport
- The majority of this budget is devoted to collaborative research projects but there are many "programmes".



# Road research & the European Commission

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- In FP6 (2002-2006), road infrastructure research had €21M of EC funding to over 145 contractors from 23 countries\*
- In FP7, 'one-third' of road transport research could be infrastructure related – 10 times the funding of FP6?
- Plus other opportunities in Environment, ICT and Materials Programmes

\*EC - Andras Siegler to FEHRL General Assembly 2007

# Some indications for road research in FP7

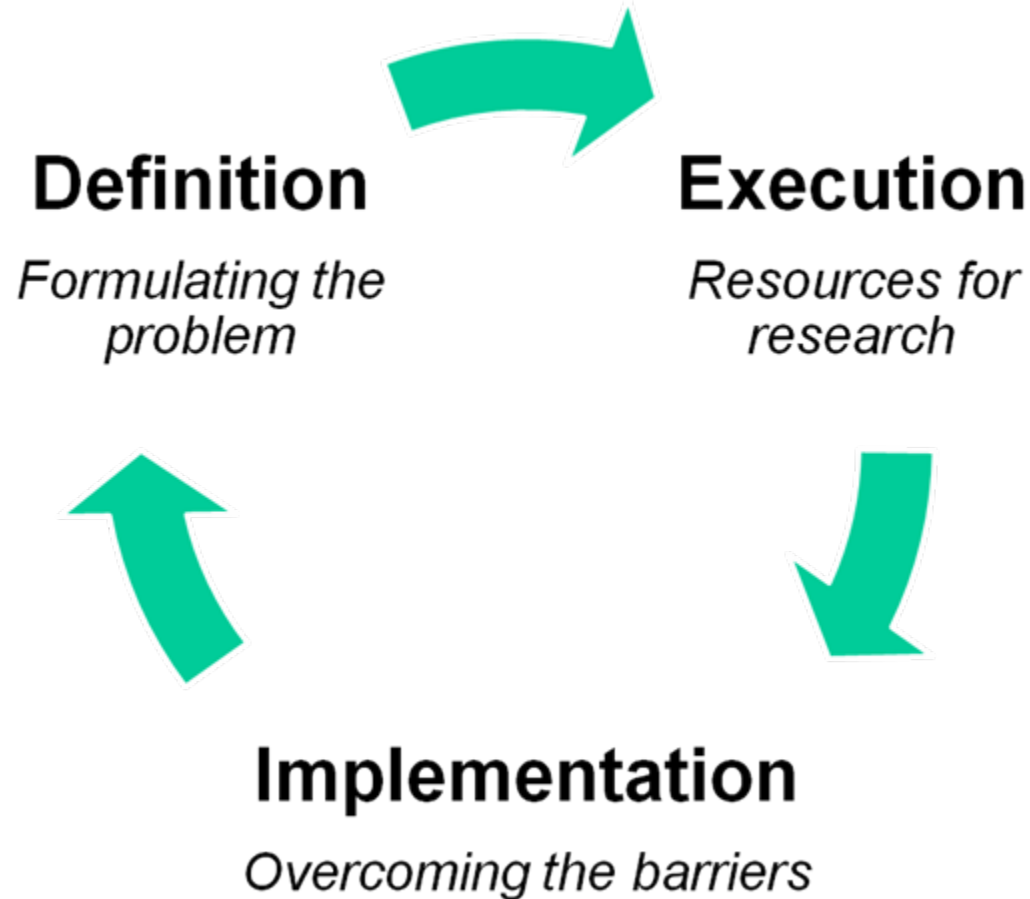
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- Focus on technology developments to address key priorities
  - greener, safer, smarter and competitive
  - Multidisciplinary 'systems' approach needed
- Large-scale (integrated projects) can include 'traditional' infrastructure topics within a multidisciplinary project
- Small, short-term, projects support dissemination and knowledge transfer
- International cooperation is a major priority



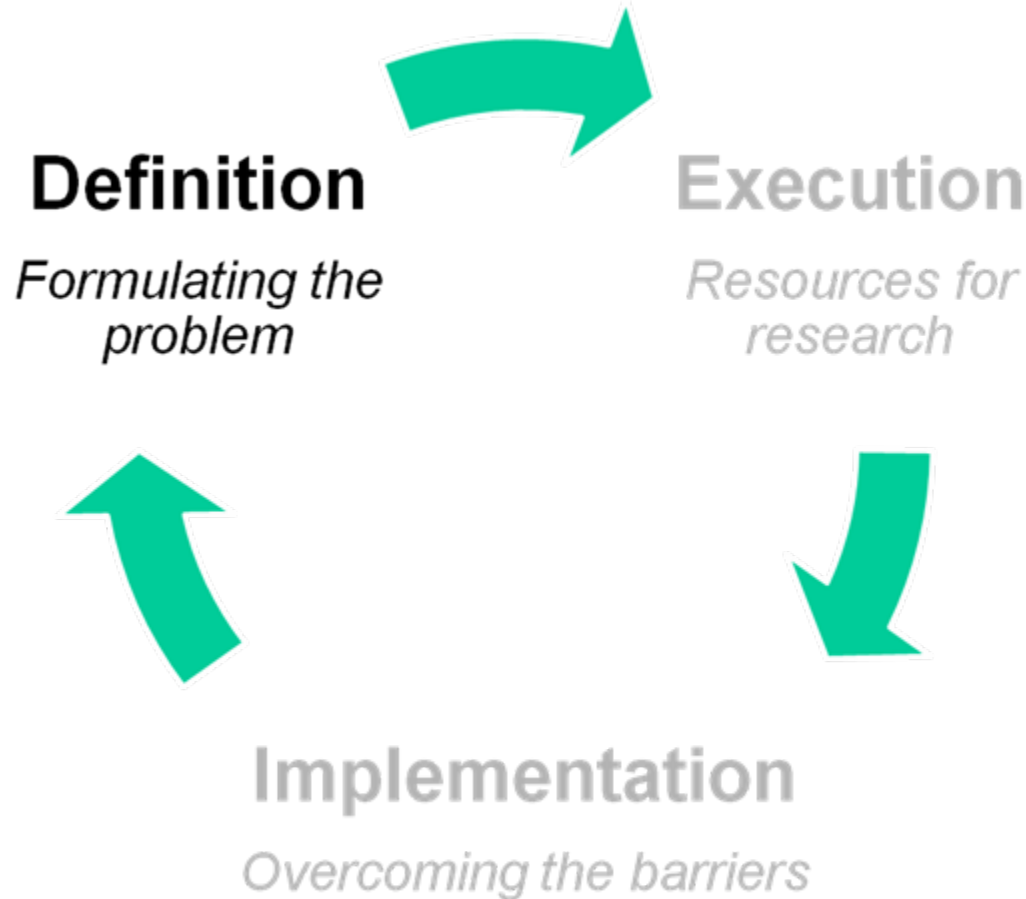
# Partnerships for each stage of the cycle

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# Partnerships for each stage of the cycle

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# Partnerships with problem owners

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- Definition of research problems and priorities
- The main problem owners are government and regulatory bodies; road authorities (national and local) and industry.
  - Needs for policy
    - Shaping future transport strategies, avoiding dead ends
  - Needs for operation
    - National road authorities; city and regions
  - Needs for business
    - Industry (automotive and construction)

# Partnerships for profile

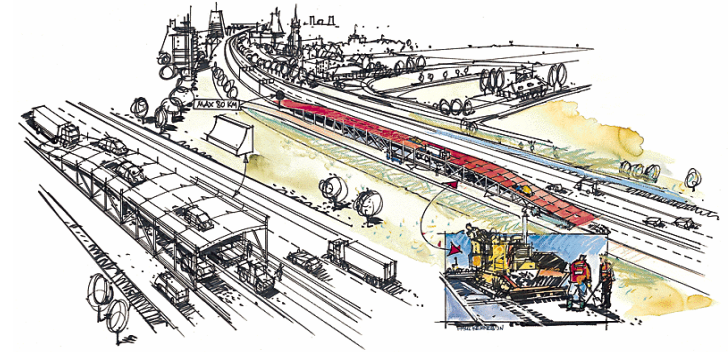
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- In order to bridge the gap between the identification of the research need and the research to provide the solution, partnerships are needed to create the right climate for the research.
- Sometimes the objective might be to convince the problem owner that they have a problem.

# Increasing the perception of innovation

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- Promoting and advertising the opportunities of Innovation
  - FEHRL Vision
  - New Road Construction Concepts
- Removing barriers to implementation;
  - Performance based specifications
  - New Standards



# Reshaping Europe's Transport Research Scene

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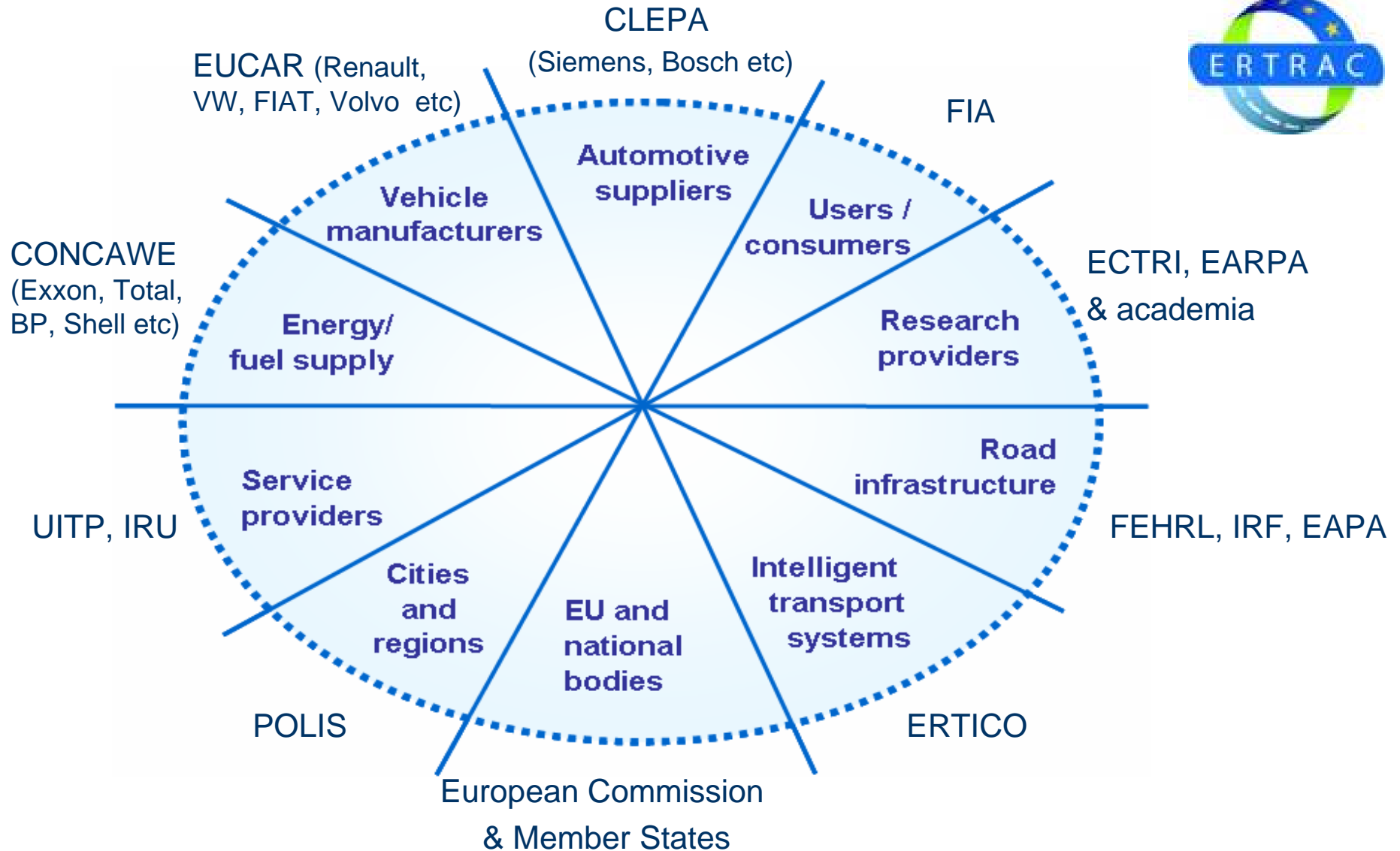
The major actors in funding bodies for Transport Research are the Member States, European Commission (EC) and Industry.

The 'Technology Platform' ERTRAC was created as a forum to bring together industry, research organisations & academia, the Member States and the EC.

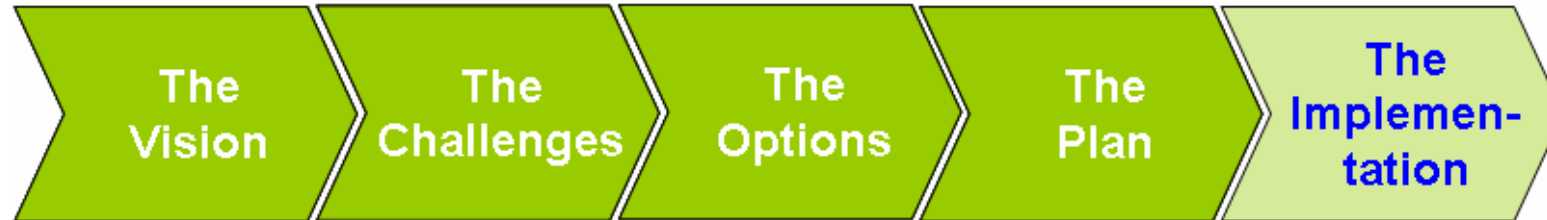


European Road Transport Research Advisory Council.

# Structure of ERTRAC



# ERTRAC process



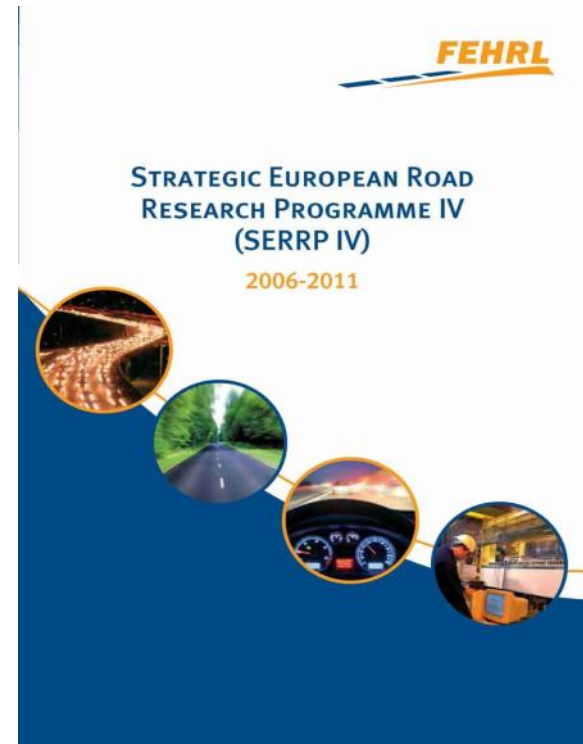
- **Priorities**
- **FP7**
- **X-Stakeholder Topics**
- **Tbd Projects/ JTI ...**



# Response of members - FEHRL

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- Both in support of ERTRAC and in their own interests, members have defined their own Research Agenda.
  - FEHRL itself has developed its 4<sup>th</sup> Strategic European Road Research Programme (SERRP IV)

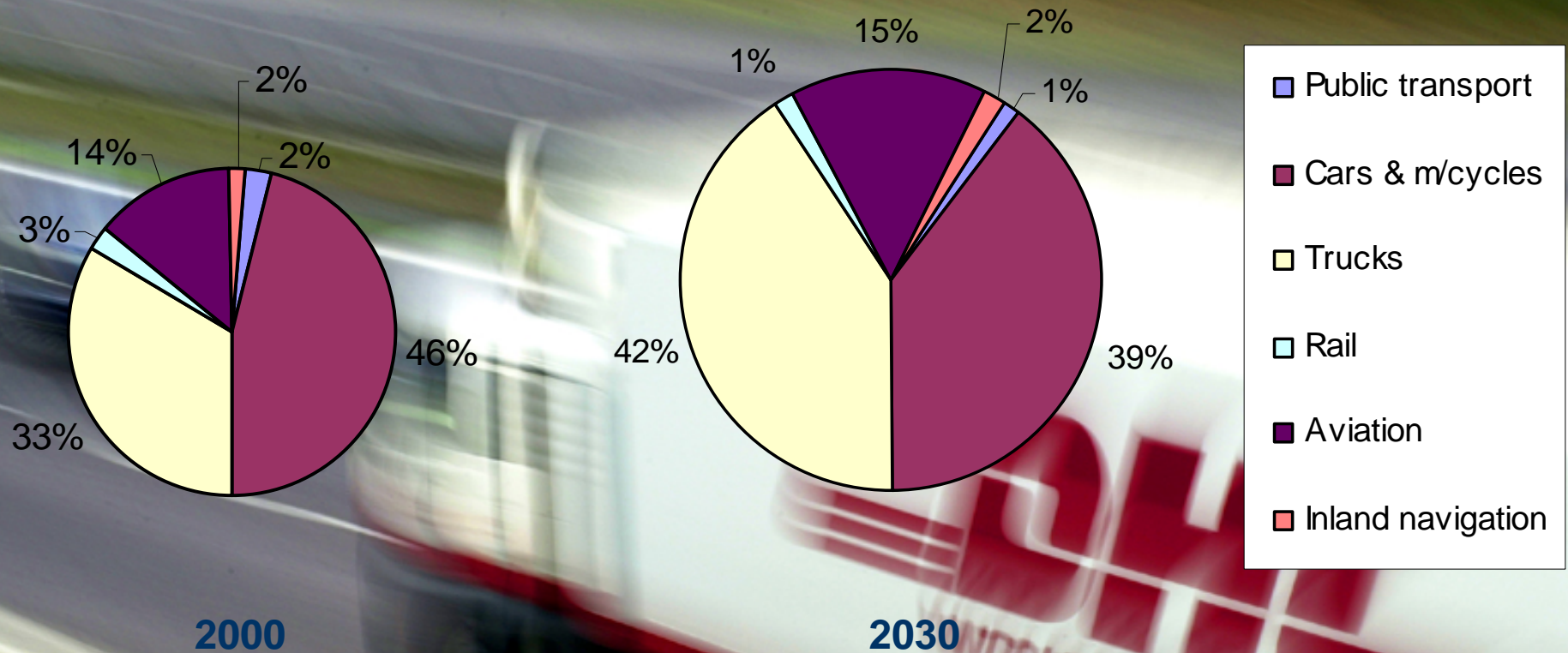


# FEHRL's programme

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- The Strategic European Road Research Programme (SERRP IV) considers four themes.
  - Mobility, Transport & Infrastructure
  - Energy, Environment & Resources
  - Safety & Security
  - Design & Production
- The programme combines internal projects, collaborative projects with industry, individual national projects and EC projects.

# Energy consumption & CO<sub>2</sub>



*Trucks grow from second largest energy consumer in the transport sector in 2000 (EU-30) to the largest in 2030*

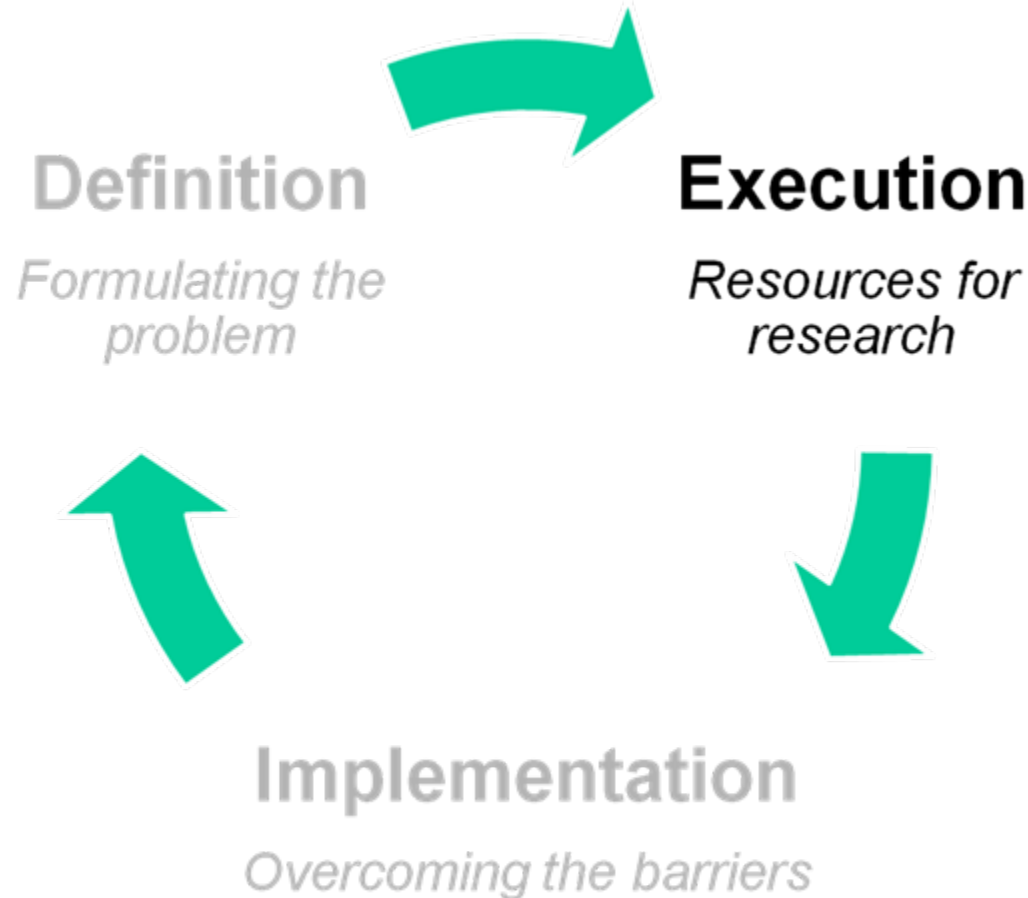
Source: DG TREN

# Design & production

- **Implementation of innovation**
- **Flexible production**
- **Lifetime resource use**
- **Issues including**
  - **Standardisation issues**
  - **Vehicle-Tyre/road interaction studies**
  - **Simulation tools and models for life-cycle assessment**
  - **Pilot-scale assessment tools**
  - **High-speed diagnostic testing**

# Partnerships for each stage of the cycle

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# Partnerships for research execution (1)

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- To successfully carry out the research, strong partnerships are needed;
  - to coordinate internal capacity;
  - to access specific research expertise (especially to address multi-disciplinary issues);
  - to meet the strategic/political objectives of problem owners or funding agencies;
  - to reduce barriers to implementation;



# Partnerships for research execution (2)

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- To strengthen the breadth and depth of research capacity, partnerships are sought and developed with other research providers in Europe and elsewhere.
- International cooperation is an increasingly important issue.
  - EC SIMBA project, SHRP2 etc
- Industrial involvement is increasingly sought.
  - Such partnerships take place through bilateral arrangements and through structures such as ERTRAC



....strengthening road transport research cooperation between Europe and emerging international markets to increase road safety, mobility, and transport efficiency...





# International Cooperation Roadmap

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Establish first contacts with relevant local stakeholders



Jointly establish country priorities and common interests

Create working groups, feasibility studies and gap analysis of



Create R&D and/ or demonstration projects

Technology uptake

Two main focus Areas: ITS and Infrastructure

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# Priority areas for cooperation

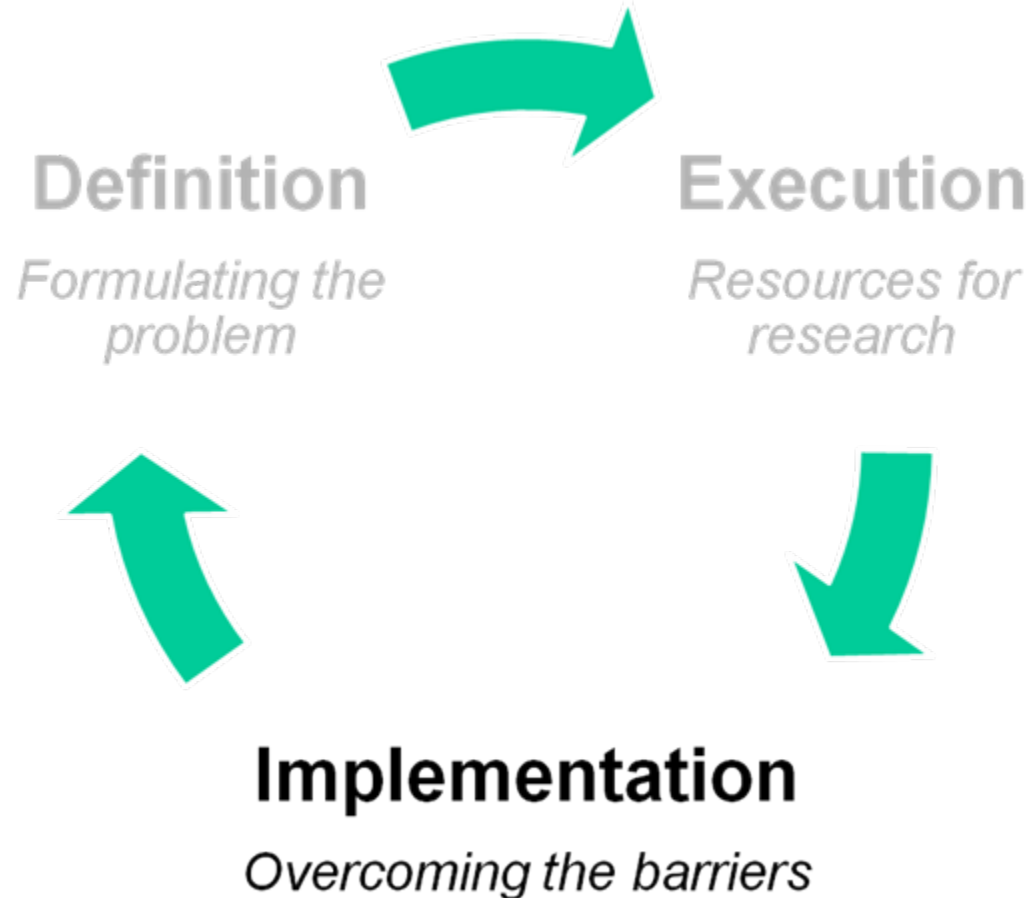
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- South Africa:
  - Road infrastructure safety
  - Road pricing
  - Intelligent infrastructure
  - Heavy vehicles and roadwear



# Partnerships for each stage of the cycle

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# Partnerships for implementation

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- Structurally - and politically - infrastructure research (and especially implementation) is not the same as 'industrial' research in related sectors (e.g automotive research).
- To be successful (and ensure implementation), we need to involve more countries in our research in order to avoid the 'not invented here' and the 'it cannot work here' syndrome.

# Implementation considerations

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- Proof of concept
  - Industry often has different levels of proof
- Translation to standards
  - Performance specifications help to foster innovation
- Overcoming blockages
- Language considerations
  - Important to use local experts

# Summary

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- Road transport has an important place in European research and FP7
  - Reduction of energy use
  - Heavy vehicle issues
  - Safety and congestion
  - Competitive products
- International cooperation is a high priority
- Now we need to prove that our sector has the innovation and the capacity.....

# End word.....

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- Successful research depends upon successful partnerships.
- The road research challenges present dynamic environment where partnerships (both new and existing) need to be developed.
- The door is open.....

[www.fehrl.org](http://www.fehrl.org)